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Relying on panel data from the National Longitudinal Survey of Youth (NLSY79), this study finds that about half the study sample (N = 5,304) never experienced annual debt between 1985 and 2008, that the vast majority of those who incurred annual debt were short-term (1 year) or intermittent debtors (2-4 years), that the proportion of the study sample in debt for the most part declined over time, but also that the level of debt increased. Multinomial regression results indicated that health status and level of changes in income are robust predictors of debt in general, that age and race/ethnicity are robust predictors of short-term and intermittent debt, that locus of control, family structure during adolescence, SES, work effort, and marital status are robust predictors of intermittent and chronic debt, and that self-esteem, gender, SES, and work effort are robust predictors of chronic debt. Findings challenge blanket contentions that a culture of debt characterizes individuals and families in the U.S and they present a more nuanced portrait of debtors than the stereotype as young and single.

Key words: *Consumer debt, culture of debt, economic well-being, socioeconomic status, wealth*

This study has three main aims: (1) to examine the prevalence, depth, and patterns of consumer debt over time; (2) to explore the influence of sociodemographic background characteristics of attitudinal/psychological variables on duration and levels of consumer debt; and (3) to determine what

characteristics or attributes, if any, differentiate chronic from short-term and intermittent debtors, thereby reassessing the typicality of debtors as primarily young and single. Theoretically, the study seeks to shed light on the role of background or upbringing factors on indebtedness and to assess the merits of prior research suggesting that indebtedness has become a way of life, that a "culture of debt" has come to signify the socioeconomic experiences of families in the U.S. The study explores whether poverty and absent parenthood in one's early upbringing, theorized as imparting a greater sense of present-orientation than of delaying gratification, are robust predictors of later life indebtedness (Strotz, 1956). To the extent poverty and absent parenthood do impart a sense of present-orientation, they can be viewed as contributing to a culture of debt, providing a structural context which is likely to appear in later life as indebtedness.

Likewise, to what extent are locus of control (one's sense that s/he can influence events) and self-esteem associated with the depth and duration of later life indebtedness? To the extent that a sense of a lack of control over events and low self-esteem show association, they too can be viewed as contributing to a culture of debt, signifying a psychological mechanism at work during adolescence that is also likely to be associated with indebtedness in later life. To what extent are younger age and single marital status robust predictors of debt, that is, when accounting for background and other socioeconomic factors? What policy and practice implications flow from such theoretical considerations and empirical findings?

Literature Review

Over the past two decades there has been increasing public concern about and scholarly attention to consumer debt. Increased borrowing among families in the U.S. since the 1980s was noted in the 1990s as family debt and assets grew in tandem between 1989 and 1995. Debt as a proportion of assets held steady at about 16% over the period ("Family debt in the United States," 1998), but increased thereafter (Kennickell, 2009; Kish, 2006). U.S. household debt increased from about 60% of GDP in 1990 to nearly 100% in 2008,

paralleling increased personal consumption from about $5.32 trillion (in 2010 dollars) peaking at about $10.25 trillion (Baily & Lund, 2009; Hamm, 2008). A slow recovery from the 2008-2009 recession, prompted by a subprime mortgages-related financial crisis (Beitel, 2008; Gerardi, Lenhert, Sherlund, & Willen, 2008), kept debt at the forefront of public concern even as interest rates subsequently reached lows not seen since the 1950s (Bernard & Anderson, 2008; Bowley, 2010; Dash, 2009; Foster & Magdoff, 2008; Pressman & Scott, 2009).

In the view of some, debt had become a way of life in the U.S. by the early 1990s (Lea, Webley, & Levine, 1993). More recently debt was dubbed a "new safety net" for families and households in the U.S. (Draut, 2007), in the short term providing relief from more formidable social problems associated with delinquent if not foregone mortgage and credit card payments and declared bankruptcies (Caputo, 2008). Although household borrowing peaked in 2008 and dropped thereafter (Baily & Lund, 2009), household debt peaked in 2009 and, given stagnant wages and incomes for most workers and their families in the U.S., remained higher than that throughout the 1990s thereafter (DeNavas-Wait, Proctor, & Smith, 2010; Eckholm, 2010; Zezza, 2009).

In addition to public concern, over the past two decades there has been a steady stream of scholarly research focusing on factors associated with consumer debt. Webley & Nyhus (2001, p. 424) reviewed earlier research and contended that much of it was a-theoretical in nature, characterized by an eclectic empiricism. They noted that the earlier research had nonetheless provided a reasonable albeit incomplete portrait of correlates of consumer debt: (1) the prototypical debtor was a young, single parent living in rented accommodation, with economic variables such as income and assets by themselves as predictors of debt; and (2) psychological factors such as locus of control and attitudes toward debt and credit were also found to be good predictors of consumer debt beyond economic factors. Causality, especially in regard to psychological measures associated with debt, was difficult to discern given that many of the earlier studies were cross-sectional. Further, methodological limitations associated with cross-sectional studies that relied on returning mail surveys precluded

adequate treatment of short-term from long-term debt.

The inadequate treatment of short-term and long-term debtors has both theoretical and practical implications: (1) short-term debt need not be considered a social problem per se, may be accounted for by expectations about future income, and may be more responsive to individually-oriented residual or temporary policy interventions; and (2) long-term debt is more likely to be considered a social problem reflecting, in part, a culture of debt if distributed along sociodemographic lines, may require alternative explanations, and may necessitate more institutional or structural-oriented policy interventions. Theoretical and policy implications flow from the extent that either short-term or long-term debt or both are pervasive and deep and how either or both are distributed across sectors of society stratified by class, gender, and race/ethnicity (Attanasio & Banks, 2001).

Much research since 2000 sought to overcome limitations associated with cross-sectional studies, particularly those relying almost exclusively on SES measures. Webley & Nyhus (2001), for example, relied on three waves of panel data (1994, 1995, and 1996) that included SES and psychological measures, with the aim, among other things, of extending our understanding of the economic psychology of debt. Results of the study corroborated earlier studies (e.g., Lea, Webley, & Levine, 1993) showing that economic measures were good predictors of debt, although psychological factors such as locus of control and attitudes toward debt also had explanatory power. For most individuals in the Webley & Nyhus study, debt was a short-term temporary problem, that is, present in only one of the three study years. Their findings cast doubt on Lea, Webley, and Levine's (1993, p. 85) contention that conditions for the development of a sustaining "culture of debt" existed. Chronic debtors, that is, those in debt in 1994 and again in either 1995 or 1996 in the Webley & Nyhus study, had lower net incomes and fewer partners and they were more present-oriented than temporary debtors.

Method

Data and Subjects

Data for this study come from the National Longitudinal Survey of Youth (NLSY79), a nationally representative sample of young men and women aged 14 to 22 years of age when first surveyed in 1979 (N=12,686). The U.S. Bureau of Labor Statistics (BLS) and the Census Bureau sponsor and coordinate NLSY79 data collection; BLS regulates data availability to the public, and the Center for Human Resource Research (CHRR) at The Ohio State University manages the NLSY79 data files. NLSY79 respondents were surveyed annually from 1979 through 1994 and biannually thereafter through 2008, the most recent year of available data at the time of this study. During this time NLSY79 respondents formed their own families and entered the labor force. By 1985 all respondents were deemed eligible to be asked questions about home ownership, signifying that everyone met criteria determining independent household status.

The study sample was derived from the 5,407 NLSY79 respondents who participated in each of the 23 waves of data acquisition between 1979 and 2008. Relying on these "continuous" NLSY79 participants minimized the extent of using imputed values for missing data on ordinal and interval level measures, namely assets and income. The final study sample comprised the 5,304 respondents for whom information on all other study measures was known. The BLS made available customized sampling weights to ensure representativeness given experimental mortality and initial oversampling of Black, Hispanic, and low-income youth (Zagorsky, n.d.). The customized sampling weight for NLSY79 respondents who participated in each survey year was used for this study.

A preliminary analysis on family and other background measures obtained in Round One of the survey in 1979 and using the 1979 sampling weight, found no appreciable differences (that is, > 10%) between the continuous participants and other NLSY79 respondents by the nominal measures of race/ethnicity, living with their mothers and fathers at 14 years of age, region of residence at age 14; no appreciable differences were found by interval level measures of age in 1979, mothers'

highest grade completed, fathers' highest grade completed, and number of siblings. About $3,000 was found to separate the total family income of continuous participants ($20,843) from other respondents ($17,918) in 1979. A slight difference was found by sex, with females more likely to be continuous (54.1%) vs. non-continuous (43.7%) participants. Differences between the study sample of continuous participants and other NLSY79 respondents for total family income and sex were deemed acceptable, given twenty-three waves over nearly thirty years of data collection from the same sample of individuals. Nonetheless, generalizations about the cohort based on the study sample were cautiously made with aforementioned limitations of representativeness in mind. Further, it should be kept in mind that NLSY79 represents one cohort of youth in the U.S and is not representative of other youth cohorts or of the population as a whole.

Measures

The dependent measures of debt. Debt has been measured in a variety of ways with varying degrees of methodological sophistication and rigor, with all measures having some limitations (e.g., see Dessart & Kuylen, 1986; Lea, Webley, & Levine, 1993; Webley & Nyhus, 2001). For purposes of the present study, annual family net worth was used to determine the amount or level of annual debt. The NLSY79 included a variety of asset and liability measures in most survey years between 1985, the first year when everyone in the cohort sample was also eligible for survey items related to homeownership, and 2008, the most recent year of available data at the time of this study. In addition to home ownership and related debt measures, this study included money assets, vehicle ownership and related debt. In 2008 the Center for Human Resource Research (CHRR, n.d.a) released to the public a revised asset series to account for top coding, missing values, and other possible sources of bias and created a measure of net worth for every survey year which had an asset module. Family net worth equaled home value – mortgage – property debt + cash savings + stocks and bonds + trusts + business assets – business debt + car value – car debt + possessions – other debt + IRAs + 401Ks + CDs. For purposes of this study, all dollar values of annual net worth

between 1985 and 2008 were converted to 2010 dollars. Family net worth was not available for survey years 1991, 2002, and 2006.

A main limitation of using net worth as the basis of debt determination, especially level of debt, is that it is market driven, subject to period effects reflecting, for example, housing bubbles, market exuberance, and the like. This would be more problematic in a cross-sectional study if the examined year were an exceptional spike or trough rather than typical. Reliance on multiple observations over time, as is the case in the present study, makes it possible to identify exceptional years if they were to occur, to minimize the biasing influence of period effects, and to smooth out the experience of debt over the time period. The use of family net worth was justified for theoretical and practical reasons. The family has been shown to have theoretical relevance to family preferences about wealth accumulation, intra- and intergenerational transmission of income, and wealth across a variety of family types or structures (Bergstrom, 1996).

Debtors were those whose annual family net worth fell below $0.00. In each survey year between 1985 and 2008, they were coded as 1, others as 0. The dependent variable of interest, Debtor Status, was a multinomial measure coded such that 1 (*non-debtors*) = those who reported no debt in any survey year between 1985 and 2008, 2 (*short-term debtors*) = those who reported one year of debt, 3 (*intermittent debtors*) = those who reported 2-4 years of debt, and 4 (*chronic debtors*) = those who reported 5 or more years of debt.

The independent measures or predictors. Adopting Webley & Nyhus (2001) who relied on household income, family net income was used to calculate change in income measure (available annually for changes from 1985 through 1996 and biannually thereafter). Annual family net incomes were converted to 2010 dollars. A 9-point ordinal level scale was created to reflect changes in annual family net incomes from one survey year to the next, ranging from 1, which signified a decrease of 80% or more, to 9, which signified an increase of 80% or more. The middle category of 5 was assigned to changes in income of $\pm$ 20% and for purposes of this research signified No Change in Income between survey years. For purposes of the

multinomial regression procedure described below, dummy measures were created from this income scale: Number of years of no changes in annual family net income over the 16 survey years between 1985 and 2008 was determined and served as the reference category; other dummy measures reflected incremental increases greater than 20% and decreases greater than 20%.

Two measures were used to capture SES: average income-to-poverty ratio (IPR) and average wealth-to-income ratio (WIR). IPR was based on official annual Federal poverty thresholds that accounted for family size. Annual IPRs were summed and an average calculated for the study period 1985-2008. Respondents were accordingly classified as on average: *Poor*, that is, living in families with income-to-poverty ratios (IPR) ≤ 1; *Near Poor* with IPR $> 1 \leq 2$; and *More Affluent* with IPR > 2. WIR was measured as the ratio of average annual net worth to average annual net family income between 1985 and 2008. Annual WIRs were summed and an average calculated for the study period 1985-2008, with larger positive values signifying greater capacity to carry debt and larger negative values signifying decreased capacity over the study period. WIR was stratified into quintile rankings and coded such that 1 = *Highest Quintile*, 0 = *other*.

Background sociodemographic measures included age, race/ethnicity, sex, SES in 1979, and three measures of respondents' living circumstances at age 14: whether they lived with both parents, whether they lived in the U.S. South, and whether they lived in an urban area. Other related measures used as controls included education level, health limitations, geographic residences in 2008 (that is lived in the U.S. South; lived in an urban area), and marital status in 2008. Education classified respondents according to highest grade completed at the time of interview in survey year 2008: < high school, high school graduate, some college, or college graduate. Health limitations was operationalized as number of years respondents reported that health conditions precluded their working or affected the nature and type of work they did between 1979 and 2008. Marital status in 2008 classified respondents as married, divorced/separated/widowed, or never married.

Attitudinal or psychological measures included the Rotter

Internal-External Locus of Control Scale and the Rosenberg Self-Esteem Scale (CHRR, n.d.b). The Rotter Locus of Control Scale is a four-item abbreviated version of a 23-item forced-choice questionnaire adapted from the 60-item Rotter Adult I-E scale developed by Rotter (1966). The scale is designed to measure the extent to which individuals believe they had control over their lives through self-motivation or self-determination (internal control) as opposed to the extent that the environment (that is, chance, fate, luck) controls their lives (external control). Scores range from 4 to 16 in the external direction, that is, the higher the score, the more external the individual. The summed score on the NLSY79 abbreviated version was found to correlate well with self-esteem ($r = -.278, p < .001$) and education ($r = -.215, p < .001$), and to a lesser extent social class ([family income] $r = -.086, p < .001$), but the internal consistency of the scale was quite low for the whole cohort (alpha = .36). Separate estimates by race and sex did not yield significantly higher reliability estimates for the whole cohort. The internal consistency of the scale was lower for the study sample (alpha = .21).

The Rosenberg Self-Esteem Scale was administered during the 1980, 1987, and 2006 interviews (CHRR, n.d.b). This 10-item scale, designed for adolescents and adults, measures the self-evaluation that an individual makes and customarily maintains. It describes a degree of approval or disapproval toward oneself (Rosenberg, 1965). The scale is short, widely used, and has accumulated evidence of validity and reliability. It contains 10 statements of self-approval and disapproval with which respondents are asked to strongly agree, agree, disagree, or strongly disagree. In earlier studies, the scale was found to be highly internally consistent, with reliability coefficients that ranged from .87 (Menaghan, 1990) to .94 (Strocchia-Rivera, 1988), depending on the nature of the NLSY79 sample selected. The internal consistency of the items obtained in 1980, which constituted the scale used for this study, was also found to be highly consistent for the study sample (alpha = .82).

Findings

Descriptive Statistics

In regard to Debt Status, over half the study sample (54.6% weighted, n = 2,614) reported no years of net debt (Non-debtors) between 1985 and 2008; 15.5% (n = 906) reported one year (Short-term debtors); 21.4% (n = 1288) 2-4 years (Intermittent debtors); and 8.5% (n = 496) 5 years or more (Chronic debtors). As can be seen in Table 1, most nominal level study measures were found to be significantly related to Debt Status. These statistically significant measures are shown here for heuristic purposes and were included in the multinomial regression procedure, whose results are presented in the next section. No further discussion of them was warranted, given the stated interest in robust predictors.

In regard to attitudes, as can be seen in Table 2, both locus of control ($F = 325.89$, $p < .001$) and self-esteem ($F = 877.55$, $p < .001$) were found to be significantly related to Debt Status, as were several other nominal level measures, such as years of health limitations between 1979 and 2008 ($F = 1000.95$, $p < .001$) and most other ordinal and interval level measures between 1985 and 2008: average income-to-poverty ratio ($F = 2391.86$, $p < .001$); average net worth ($F = 171.80$, $p < .001$); average number of weeks worked ($F = 28.45$, $p < .001$); and the ratio of average net worth to average net family income ($F = 3.38$, $p < .05$). Each of these was made into a dummy measure for purposes of the multinomial regression procedure. No further discussion of these statistically significant measures was warranted here given our interest in robust predictors.

As can be seen in Table 3, the proportion of the study sample in debt for the most part declined between 1985 and 2008, ranging from a high of 12.4% in 1986 to a low of 5.5% in 2004. The level of debt, whether measured as a mean or the median, however increased over time. The average amount of debt was nearly six times higher, increasing from nearly $8,300 in 1985 to more than $49,000 in 2008, and the median was nearly three times higher, increasing from nearly $3,900 to more than $11,000 in 2008.

Table 1. Nominal Level Characteristics of the Study Sample by Debtor Status

Nominal Level Characteristics	Debtor Status: Non-debtors (0 yrs. of net debt) (n=1,614)	Short-term (1 yr. of net debt) (n=906)	Intermittent (2-4 yrs. of net debt) (n=1,288)	Chronic (5+ yrs. of net debt) (n=496)	χ^2	Sig.
Background						
At 14 years old						
Lived in US South					20.44	***
No	55.7	15.3	20.7	08.3		
Yes	52.1	15.8	23.0	09.1		
Lived with mother & father					62.11	***
No	45.9	16.6	25.5	12.0		
Yes	57.4	15.1	20.1	07.4		
Urban					3.87	
No	55.4	16.4	19.3	08.9		
Yes	54.3	15.2	22.1	08.4		
Race/ethnicity					154.23	***
Black	40.0	20.0	29.3	10.7		
Hispanic	45.9	18.3	20.8	07.7		
White	57.9	14.4	19.5	08.2		
SES in 1979					121.12	***
Poor (IPR≤1)	41.8	17.8	28.1	12.3		
Near Poor (IPR>1≤2)	42.7	17.4	25.5	09.9		
Affluent (IPR>2)	60.2	14.2	18.4	07.2		
Sex					38.12	***
Male	57.0	15.6	20.6	06.9		
Female	52.1	15.4	22.3	10.2		
In 2008						
Highest Grade Completed					50.71	***
< HS	34.8	20.9	27.6	16.7		
HS Graduate	52.5	17.7	22.4	07.4		
Some College	54.8	13.8	20.5	10.9		
Coll. Graduate	59.3	13.0	20.1	07.6		
Marital Status					135.35	***
Never Married	49.0	18.5	23.5	09.0		
Married	59.5	14.5	19.3	06.8		
Sep/Wid/Div	42.8	16.8	26.9	13.5		
Lived in US South					20.70	***
No	56.5	15.4	19.7	08.5		
Yes	51.4	15.1	25.0	08.4		
Urban					5.60	
No	55.5	15.9	20.1	08.5		
Yes	54.3	15.2	22.0	08.5		
Other 1985-2008						
Average annual % Δ in family income					60.63	***
No Δ (lowest to < 20% +)	59.6	15.1	18.6	06.7		
20% < 40%	52.4	14.5	22.6	10.5		
40% < 60% +	48.4	16.5	24.2	10.8		
60% < 80% +	51.5	15.2	26.6	06.7		
80% > +	48.2	16.7	24.7	10.4		

Note: Weighted percentages are shown. The lowest percentage change in annual family income between 1985 and 2008 on average was -13%, resulting in their inclusion in the No change category. ***$p < .001$.

Table 2. Scale Level Characteristics of the Study Sample by Debtor Status

Scale Level Characteristics	Debtor Status: Non-debtors (n=1,614) 1	Short-term (n=906) 2	Intermittent (n=1,288) 3	Chronic (n=496) 4	F-value	Sig.	Post Hoc
Age in 1979	17.81	17.32	17.29	17.29	22.98	ns	----------
Attitudes							
Rotter locus of control (1979)	08.47	08.86	08.85	09.21	325.89	***	1 < 3, 2 < 4
Self-esteem (1980)	22.69	22.33	21.95	21.48	877.55	***	1, 2 > 4; 1 > 3
Years health limitations 1979-2008	01.26	01.61	01.90	02.68	1000.95	***	1 < 2, 3 < 4
Other 1985-2008							
Annual net family income change							
No Change	07.61	06.85	06.44	06.07	63.17	***	1 > 2 > 3, 4
Years Decrease	03.58	03.97	04.12	04.35	142.32	***	1 < 2 < 3, 4
Years Increase	04.81	05.18	05.43	05.57	53.02	***	1 < 2 < 3, 4
Average IPR	05.00	04.05	03.76	03.12	2391.86	***	1 > 2, 3 > 4
Average inflation adjusted net worth $$	155,187	78,985	51,305	15,428	171.80	***	1 > 2 > 3 > 4
Average # of weeks worked	41.41	39.63	38.38	36.58	28.45	***	1 > 2, 3, 4; 2 > 4
Average # of working weeks unaccounted for	00.84	00.90	00.99	00.94	07.05	ns	----------
Ratio of net worth to family income	539.36	223.02	57.60	-39.99	3.38	*	1, 2 > 4; 2, 3, 4

Note: Post hoc tests for mean differences are significant at the .05 level. Overall mean differences and post hoc statistics for Average inflation adjusted net worth should be interpreted cautiously due to skewness = 3.738 (SESkewness = .034), z = 109.94. Using the logarithm of Average inflation adjusted net worth yielded the same relationship between categories of Debtor Status (F = 201.09, p < .001), with the following (mean) values: 1 (4.80) > 2 (4.48) > 3 (4.29) > 4 (3.99).

*p < .05. ***p < .001.

Table 3. Debt by Year (in 2010 dollars)

Year	Debtors # (%)	Mean Debt	Median Debt	Greatest Debt	Least Debt
1985	1605 (34.7)	$6,619	$3,857	$172,550	$1,015
1986	1852 (39.1)	7,067	3,980	298,500	995
1987	673 (39.4)	14,455	4,800	327,360	48
1988	686 (42.1)	12,741	4,968	1,320,200	50
1989	672 (43.2)	12,695	4,400	1,038,752	33
1990	664 (45.0)	15,855	5,511	672,008	167
1992	608 (45.1)	13,400	5,425	379,750	39
1993	590 (42.6)	13,849	5,055	1,510,000	68
1994	511 (40.4)	13,430	5,865	299,880	37
1996	492 (37.7)	18,859	6,255	326,859	97
1998	438 (36.8)	21,241	6,700	1,352,596	67
2000	400 (38.2)	20,459	6,414	770,266	64
2004	349 (25.5)	37,526	9,200	1,005,584	12
2008	377 (30.3)	49,290	11,110	1,612,970	22

Note: Percentages are weighted. Dollar amounts are rounded.

Multinomial Regression Statistics

As can be seen in Table 4, the only predictors sufficiently robust to distinguish non-debtors from short-term, intermittent, and chronic debtors, respectively, were health limits, income changes, and SES. Those who reported no health limitations regarding the type or extent of work they could do were 1.2 times more likely than those reporting some health limitations to be non-debtors than were short-term debtors, 1.46 times more likely than were intermittent debtors, and 1.74 times than were chronic debtors. Those who reported no increases in average annual family income between 1985 and 2008 were less likely to be non-debtors than those who reported some increases and those who reported greater increases were, for the most part, even less likely to be longer term debtors. Those reporting average increases of 80% or more were 1.34 (1/.726) times less likely than those who reported no increases to be non-debtors than to be short-term debtors, 1.44 times less likely than to be intermittent debtors, and 1.58 times than to be chronic debtors. Of the two SES measures, the ratio of average net annual wealth to average net family income

Table 4. Multinomial Regression

	Parameter Estimates					
					95% Confidence Level for Exp (B)	
Debtor Status	B	Sig	Wald	Exp(B)	Lower Level	Upper Level
Short-term Debtors						
Age (1=Young)	-.264	**	7.98	.768	.640	.922
Race/ethnicity						
Black	-.419	***	15.32	.657	.533	.811
Hispanic	-.458	***	16.17	.633	.506	.791
Health limits (1=None)	.183	*	4.54	1.200	1.015	1.420
Income change						
(1=80%+ increase)	-.321	**	8.45	.726	.585	.901
SES						
Average Wealth-Income Ratio (1=Highest Quintile)	.656	***	37.27	1.927	1.561	2.378
Intermittent Debtors						
Age (1=Young)	-.189	*	4.97	.828	.701	.977
Attitudes						
Locus of Control (1=Lowest Quintile)	.241	*	6.35	1.273	1.055	1.535
Race/ethnicity						
Black	-.253	**	6.79	.777	.642	.939
Hispanic	-.441	***	18.48	.644	.526	.787
Health limits (1=None)	.383	***	24.94	1.467	1.262	1.706
Income change						
(1=20% < 40% increase)	-.265	**	7.14	.767	.631	.932
(1=40% < 60% increase)	-.363	**	7.42	.696	.536	.903
(1=60% < 80% increase)	-.409	*	5.62	.665	.474	.932
(1=80%+ increase)	-.366	***	13.31	.694	.570	.844
Lived with mother & father at age 14	.169	*	4.32	1.185	1.010	1.390
Marital Status						
(1=Sep/Divorced/Widowed)	-.382	**	10.80	.683	.543	.857
SES						
Average IPR (1=At or < 2x poverty level)	-.349	**	9.75	.706	.567	.878
Average Wealth-Income Ratio (1=Highest Quintile)	1.135	***	118.01	3.112	2.536	3.820
Weeks Worked (1=Highest Quintile)	.566	***	29.87	1.761	1.438	2.157

was the only predictor sufficiently robust to distinguish non-debtors from short-term, intermittent, and chronic debtors. Compared to those in other wealth-income quintiles, those in the highest were 1.93 times more likely to be non-debtors than they were to be short-term debtors, 3.11 times more likely than they were to be intermittent debtors, and 9.42 times more likely than they were to be chronic debtors.

Table 4. Multinomial Regression, continued

	Parameter Estimates					
					95% Confidence Level for Exp (B)	
Debtor Status	B	Sig	Wald	Exp(B)	Lower Level	Upper Level
Chronic Debtors						
Attitudes						
Locus of Control (1=Lowest Quintile)	.357	*	5.92	1.429	1.072	1.905
Self-esteem (1=Lowest Quintile)	-.378	**	8.75	.685	.533	.880
Health limits (1=None)	.552	***	24.70	1.737	1.397	2.159
Income change						
(1=20% < 40% increase)	-.288	*	4.01	.750	.566	.994
(1=40% < 60% increase)	-.457	*	6.13	.633	.441	.909
(1=80%+ increase)	-.458	**	10.46	.632	.479	.835
Lived with mother & father at age 14	.435	***	14.45	1.545	1.235	1.933
Marital Status						
(1=Sep/Divorced/Widowed)	-.650	***	16.90	.522	.383	.712
SES						
Average IPR (1=At or < 2x poverty level)	-.556	***	13.54	.574	.427	.771
Average Wealth-Income Ratio (1=Highest Quintile)	2.243	***	102.41	9.420	6.101	14.544
Sex (1=Male)	.255	*	5.18	1.290	1.036	1.606
Weeks Worked (1=Highest Quintile)	.754	***	18.95	2.126	1.514	2.986
-2 Log Likelihood	11102.49 (χ^2 = 820.63, p < .001)					
Goodness of Fit	χ^2 = 12800.07, p = .961					
Nagelkerke R-Square	.157					

Note: Only statistically significant measures are shown. Reference category for the Model = Non-debtors between 1985 and 2008; for Income change = No notable % change in annual average net family income defined as Lowest to <20% increase; for Race/ethnicity = White; for Marital Status = Married. For Average Wealth-Income Ratio, Locus of Control, and Weeks Worked, 0 = Other.
*p < .05. **p < .01. ***p < .001.

Two measures were found to be sufficiently robust predictors distinguishing only short-term and intermittent debtors from non-debtors: age and race/ethnicity. Younger subjects were 1.3 times less likely than older subjects to be short-term debtors and 1.2 times less likely than older subjects to be intermittent debtors. Compared to White subjects, Blacks were 1.52 times less likely to be short-term debtors and 1.29 times less likely to be intermittent debtors; Hispanics were 1.58 times less

likely to be short-term debtors and 1.55 times less likely to be intermittent debtors.

Five measures were found to be sufficiently robust predictors distinguishing intermittent and chronic debtors from non-debtors: locus of control, living with mother and father at age 14, marital status in 2008, SES measured as average IPR between 1985 and 2008, and average annual number of weeks worked between 1985 and 2008. Those in the lowest quintile scores on the Rotter locus of control scale, that is, those with a greater sense of internal control, were 1.27 times more likely than those in the other quintiles to be non-debtors than were intermittent debtors, and 1.43 times more likely to be non-debtors than were chronic debtors. Those living with mother and father at age 14 were 1.19 times more likely than those in other living arrangements to be non-debtors than were intermittent debtors, and 1.55 times more likely to be non-debtors than were chronic debtors. Separated, divorced, or widowed subjects were 1.46 times less likely than never married subjects to be intermittent debtors and 1.92 times less likely than never married subjects to be chronic debtors. Those whose average IPR between 1985 and 2008 was at or below twice official poverty levels were 1.4 times less likely than more affluent subjects to be intermittent debtors and 1.74 times less likely than never married subjects to be chronic debtors. Compared to those in other weeks-worked quintiles, those in the highest were 1.76 times more likely to be non-debtors than they were to be intermittent debtors and 2.1 times more likely than they were to be chronic debtors.

Two measures were found to be sufficiently robust predictors distinguishing only chronic debtors from non-debtors: self-esteem and sex. Those with low self-esteem, that is, in the lowest Rosenberg self-esteem scale score quintile, were 1.46 times less likely than those in other quintiles to be non-debtors than they were to be chronic debtors. Men were 1.3 times more likely than women to be non-debtors than they were to be chronic debtors.

Discussion

On the whole, findings of this study corroborate Webley and Nyhus (2001), who reported debt as a short-term temporary problem, and they cast further doubt on Lea, Webley, and Levine (1993) who posited a "culture of debt." Findings also expand to our understanding of young, single parents as the "prototypical debtors" (Webley & Nyhus, 2001) by showing variation of attitudinal and sociodemographic characteristics of individuals and their families associated with short-term, intermittent, and chronic debtors.

Findings indicate that about half the study sample never experienced annual debt between 1985 and 2008, that the vast majority of those who incurred annual debt were short-term (1 year) or intermittent debtors (2-4 years), that the proportion of the study sample in debt for the most part declined, but also, that the level of debt increased over time. Multinomial regression results indicated that health status and level of changes in income are robust predictors of debt in general, that age and race/ethnicity are robust predictors of short-term and intermittent debt, that locus of control, family structure during adolescence, SES, work effort, and marital status are robust predictors of intermittent and chronic debt, and that self-esteem, gender, SES, and work effort, are robust predictors of chronic debt. As noted above, findings challenge blanket contentions that a culture of debt characterizes individuals and families in the U.S. and they present a more nuanced portrait of debtors than the stereotype as young and single.

Policymakers and others interested in the economic well-being of families are on solid ground to respond with individually-oriented or targeted temporary policy interventions. This is not to say that attention to structurally-oriented interventions is unwarranted, especially if structural factors primarily account for preventing individuals from gainful employment or force them to lower their living standards by working less or for less money than would be the case otherwise. What follows are implications for policy and practice guided by those robust predictors found first for likely short-term or intermittent debtors, for intermittent or chronic debtors, and finally for chronic debtors only.

Policy & Practice Implications for Likely Short-term and Intermittent Debtors

Study findings suggest which types of participants are more likely to experience short-term and intermittent debt and might thereby benefit from targeted interventions. Being Black and Hispanic as well as younger age persons are robust predictors of both short-term and intermittent debt. It is important to stress that these characteristics are not predictive of chronic debt—at least as operationalized in this study—namely, experiencing debt in 5 or more years between 1985 and 2008. Given that the majority of individuals are likely to experience positive net family wealth in any given year and on the whole, findings suggest that a realistic objective of debt-related interventions would be to decrease the likelihood of short-term debtors of ever experiencing debt and of intermittent debtors of experiencing debt beyond one year. Although relatively young and minority populations in the U.S. generally have higher unemployment rates and less labor market attachment than do Whites and prime age persons (Bureau of Labor Statistics, 2011), findings of this study suggest that increasing employment opportunities, although desirable for other reasons, need not be included in a primary intervention aimed at those likely to become short-term debtors, but might help those likely to become intermittent debtors.

To reduce the likelihood of clients from becoming short-term debtors, especially Black, Hispanic, and younger clients, human service agencies that do not already do so might do well to consider adding financial counseling to their array of existing services. In addition to money management, financial counseling should include ways of handling pressures from lending agencies so as not to borrow against their means as can best be determined by a realistic assessment of their employment prospects or income streams from other family members. Such services would also benefit likely intermittent debtors, but they would need to be supplemented with links to an array of employment-related services that can be responsive to their immediate needs: job search skills for those out of work, career enhancement education and training or investment strategies to increase human capital for those in low-wage work or those seeking higher paying employment opportunities, and the like.

Policy & Practice Implications for Likely Intermittent and Chronic Debtors

Study findings also identified robust predictors of those who are more likely to experience either intermittent or chronic debt and might thereby benefit from either targeted or structural interventions, or some combination of both. Those with a greater degree of external control are more likely than those with a greater sense of internal control to experience either intermittent or chronic debt. Neither the length of time nor the depth of debt need be totally beyond one's control, especially over a twenty year period or longer. Policymakers and human service professionals would do well to identify and influence cultural, educational, and social factors thought to affect an individual's sense of his or her capacity to affect their circumstances. To the extent locus of control is amenable to change, interventions aimed at increasing one's sense of internal control would reduce the likelihood of experiencing intermittent or chronic debt.

Policymakers and human service professionals can benefit from knowing that the background characteristics of family structure and current marital status are also robust predictors of intermittent and chronic debt. Individuals growing up in families with their mothers and fathers are much less likely to experience intermittent or chronic debt. Separated, widowed, or divorced persons are much less likely than married persons to avoid debt than they are to be either intermittent or chronic debtors. These findings suggest that there is something about two-parent families, beyond the prospect of two income or wealth streams, which enables them to manage their financial situations such that they are less likely to experience intermittent or chronic debt. It would be incorrect to infer that the institution of marriage is the explanatory factor. Despite statistical controls, the study reported here lacks the experimental controls to establish causality. It is quite plausible that those who enter into marriage self-select by virtue of their initial commitments to problem-solve, raise children together, and minimize financial risk-taking that may jeopardize their economic well-being. Policymakers would be well advised to avoid zero-sum solutions when devising interventions aimed at decreasing the likelihood of intermittent or chronic debt. That is, interventions

favoring separated, widowed, or divorced persons should not be implemented at the expense of married persons.

When devising and implementing interventions, policymakers and human service professionals can also benefit from knowing that socioeconomic status and work effort are robust predictors of intermittent and chronic debt. Those living in low-income families are more likely than those in more affluent families to experience intermittent or chronic debt than they are to avoid debt. This finding suggests that ending tax advantages geared toward higher income families and redistributing that income to lower income families would decrease the likelihood of lower income families experiencing intermittent or chronic debt. Although the study reported here did not focus on mortgages as a specific source of debt, findings nonetheless suggest that getting money into the hands of lower income families, for example, by underwriting mortgages or by providing tax credits to those who can demonstrate that their houses are worth considerably less, determined perhaps by a politically acceptable formula related to income. Finally, any policy or program intervention aimed at increasing work effort would decrease the likelihood of families in any socioeconomic bracket experiencing intermittent or chronic debt.

Policy & Practice Implications for Likely Chronic Debtors

Study findings also suggest two robust predictors of those more likely to experience chronic debt and thereby more likely to benefit from either targeted or structural interventions, or some combination of both, namely those with low self-esteem and women. Those with a lower sense of self-esteem are more likely than those with a greater sense of self-esteem to experience chronic debt. As is the case with locus of control, policymakers and human service professionals would do well to identify and influence cultural, educational, and social factors thought to affect an individual's sense self-esteem. To the extent self-esteem is amenable to change, interventions aimed at increasing it would reduce the likelihood of experiencing chronic debt. On the whole, women are more likely than men to experience debt, and this is especially so for chronic debt. This finding highlights the economic vulnerability of women and reaffirms a need for sustained structural interventions to

enhance women's economic well-being. As is the case with marital status, policymakers would be well advised to avoid zero-sum solutions when devising interventions aimed at decreasing the likelihood of women's experiencing chronic debt. That is, interventions favoring women should not be implemented at the expense of men.

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